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DATE: March 2003 MIP SERIES: EL11 PERIODICITY: R-2

LOCATION:

SHIP SYSTEM:

SYSTEM:

SUB SYSTEM:

EQUIPMENT: Pramac ES5500X 5.5KW Generator Set

RATES	MAN-HOURS	RATES	MAN-HOURS	RATES	MAN-HOURS
SN	0.5				
TOTAL MAN-HOURS:	0.5	ELAPSED TIME:	0.5		

MAINTENANCE REQUIREMENT DESCRIPTION

1. Change engine lube oil and clean engine lube oil filter.

SAFETY PRECAUTIONS

1. Forces afloat comply with NAVOSH Program Manual for Forces Afloat, OPNAVINST 5100.19 series; shore activities comply with NAVOSH Program Manual, OPNAVINST 5100.23 series.
2. Engine surfaces will be hot immediately after securing the engine. Allow sufficient time for external surfaces to cool down to a warm temperature before changing oil. Failure to observe this warning may result in injury to personnel.
3. Do not fill engine with lube oil while engine is running or tilted at an angle as either condition may lead to exceeding or not meeting the recommended oil level. Overfilling with oil will result in excessive oil consumption, dangerously high oil temperatures, possible crankcase explosion, and engine damage. Insufficient oil levels will result in engine seizure. Failure to observe this warning may result in possible injury or death to personnel.

TOOLS, PARTS, MATERIALS, TEST EQUIPMENT

MATERIALS

1. [00294] Cloth, cleaning
2. [00307] Container (all types), No NSN -- W/C provide
3. [00795] Lubricating oil, engine, MIL-L-9000
Hazardous Material User's Guide (HMUG) Group 11, Disposal Method 1
4. [01102] Rag, wiping
5. [01389] Thinner, paint products, TT-T-291
Hazardous Material User's Guide (HMUG) Group 15, Disposal Method 1
6. [01575] Records & logs, No NSN -- W/C provide

TOOLS

1. Tools, assorted metric, NO SSN -- W/C provide

MISCELLANEOUS

1. [00454] Funnel, 1 QT, strainer, 8" flex spout
2. [01365] Technical manuals/drawings/forms (Pramac ES5500X 5.5KW Generator Set, NAVSEA ST460-AH-OMI-010)

NOTE: Numbers in brackets can be referenced to Standard PMS Materials Identification Guide (SPMIG) for identification.

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HAZARDOUS MATERIALS CONTROL STATEMENT (U)

The Hazardous Material Users Guide (HMUG), OPNAV P-45-110-(), provides additional control measures, precautions, personal protective equipment (PPE), and spill controls for the hazardous material(s) identified in the Tools, Parts, Materials, Test, Equipment block. Maintenance personnel shall determine if additional PPE is necessary to accomplish the MRC and take appropriate action to obtain and wear such PPE to ensure the safety of maintenance personnel. Report any deficiencies via PMS feedback report.

PROCEDURE

NOTE 1: Accomplish after first 20 hours of use, and every 100 hours of use thereafter.

NOTE 2: Statement of Revelence - ensures generator is operated with clean oil and filter.

1. Change engine lube oil and clean engine lube oil filter.

WARNING: Engine surfaces will be hot immediately after securing the engine. Allow sufficient time for external surfaces to cool down to a warm temperature before changing oil. Failure to observe this warning may result in injury to personnel.

NOTE 3: Drain oil from crankcase while engine is warm as it may be difficult to drain oil completely from cool engine.

- a. Ensure engine is shut off and is still warm but not hot. Place generator set on blocks, and position drain pan underneath oil drain plug.
- b. Remove oil drain plug and allow oil to drain from crankcase. If desired, remove one of the oil filler cap/dipsticks to allow oil to drain faster.
- c. Reinstall drain plug and tighten. Reinstall dipstick if removed in step b.
- d. Using 10mm socket with ratchet handle, remove filter lock bolt.
- e. Remove engine lube oil from filter from engine, and clean with mineral spirits.
- f. Inspect O-ring and replace if damaged. Install cleaned filter and O-ring.
- g. Install filter lock bolt and tighten with 10mm socket with ratchet handle.
- h. Remove oil filler cap/dipstick.

WARNING: Do not fill engine with lube oil while engine is running or tilted at an angle as either condition may lead to exceeding or not meeting the recommended oil level. Overfilling with oil will result in excessive oil consumption, dangerously high oil temperatures, possible crankcase explosion, and engine damage. Insufficient oil levels will result in engine seizure. Failure to observe this warning may result in possible injury or death to personnel.

CAUTION: The manufacturer recommends that API CC or CD engine oil be used when changing engine lube oil. Ensure oil used is of the proper viscosity for the ambient temperature in which engine is being operated (see Table 1). Use of oil that is not of the proper type or viscosity may seriously shorten the life of the engine.

CAUTION: Do not mix different brands, types, or viscosities of engine oil.

- i. With engine in level position, insert funnel into mouth of filler port and fill crankcase with oil (crankcase is full when oil reaches mouth of filler port). Wipe away any oil spills.
- j. Using a clean lint-free cloth, wipe dipstick clean. Return oil filler cap/dipstick to filler port and tighten securely.

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PROCEDURE (Contd)

k. Update generator operating log.

Oil Type	Ambient Temperature (°C)		Ambient Temperature (°F)	
	Low Temp*	High Temp*	Low Temp*	High Temp*
5W	-30	-10	-22	+14
5W30	-30	+10	-22	+50
10W	-20	+10	-4	+50
10W30	-20	+30	-4	+86
20W	-10	+10	+14	+50
20W40	-10	+40	+14	+104
20	0	+20	+32	+68
30	+10	+30	+50	+86
40	+20	+40	+68	+104

Table 1 Recommended Oil Viscosity *Temperatures are approximate

DISPOSAL METHODS FOR HAZARDOUS MATERIAL/WASTE IDENTIFIED IN THE TOOLS, PARTS, MATERIAL, AND TEST EQUIPMENT BLOCK

Method 1: Containerize waste in original container or use standard container as listed in OPNAVINST 5100.19 series, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat and the Naval Ships Technical Manual (NSTM) S9086-T8-STM-010/CH-593, Pollution Control. Store in accordance with OPNAVINST 5100.19 series. Mark, label, or tag container with the specific contents and any information on the contaminants. This information must also be provided on the DD Form 1348-1 at the time of off-loading. Empty container guidance is available in the CNO Policy Guide for Shipboard Hazardous Material Container Disposal, OPNAV P-45-114-95. Contact the receiving shore activity (e.g., FISC and PWC) to determine the appropriate local off-loading requirements.